

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 1-5, 8-10, 14-20, and 22-24 have been amended. New claims 25-36 have been added.

1. (Currently Amended) An air induction system for inducing airflow into the intake of an internal combustion engine having a turbocharger, said system comprising:

a clean air ~~duct~~ channel containing primarily clean air directing airflow to ~~the~~ an inlet of the said turbocharger; and

a plenum ~~integrated~~ in fluid communication with said clean air ~~duct~~ channel, said plenum located within ~~the~~ an area directly in front of ~~the~~ said inlet of ~~the~~ said turbocharger, said plenum having an increased cross-sectional area relative to a cross-sectional area of a portion of said clean air ~~duct~~ channel immediately proceeding said plenum thereby reducing the velocity of ~~the air flow~~ said airflow immediately prior to delivery of ~~the air flow~~ said airflow to ~~the~~ said turbocharger.

2. (Currently Amended) The air induction system of claim 1, wherein said clean air ~~duct~~ channel further comprises a bell-mouth transition positioned between ~~the~~ an outlet of said plenum and ~~the~~ said inlet of ~~the~~ said turbocharger.

3. (Currently Amended) The air induction system of claim 2, wherein said bell-mouth transition has a radius ranging from approximately 3 to approximately 30% of ~~the~~ an effective diameter of ~~the~~ said inlet of ~~the~~ said turbocharger.
4. (Currently Amended) The air induction system of claim 2, wherein said bell-mouth transition has a radius of approximately 20% of ~~the~~ an effective diameter of ~~the~~ said inlet of ~~the~~ said turbocharger.
5. (Currently Amended) The air induction system of claim 1, wherein said clean air ~~duct~~ channel further comprises a diffuser in communication with said plenum, wherein said diffuser has an interior that is generally conical in shape and comprises a cone angle that establishes ~~the~~ an expansion rate of ~~the~~ a cross-sectional area encompassed within said diffuser.
6. (Original) The air induction system of claim 5, wherein said cone angle is in the range of approximately 4 to approximately 16 degrees.
7. (Original) The air induction system of claim 5, wherein said cone angle is approximately 12 degrees.

8. (Currently Amended) The air induction system of claim 5, wherein said clean air ~~duct~~ channel further comprises a bell-mouth transition positioned between ~~the~~ an outlet of said plenum and ~~the~~ said inlet of ~~the~~ said turbocharger.
9. (Currently Amended) The air induction system of claim 8, wherein said bell-mouth transition has a radius ranging from approximately 3 to approximately 30% of ~~the~~ an effective diameter of ~~the~~ said inlet of ~~the~~ said turbocharger.
10. (Currently Amended) The air induction system of claim 8, wherein said bell-mouth transition has a radius of approximately 20% of ~~the~~ an effective diameter of ~~the~~ said inlet of ~~the~~ said turbocharger.
11. (Original) The air induction system of claim 8, wherein said cone angle is in the range of approximately 4 to approximately 16 degrees.
12. (Original) The air induction system of claim 8, wherein said cone angle is approximately 12 degrees.
13. (Original) The air induction system of claim 1, wherein said plenum has a cross-sectional area lowering flow velocity through said plenum to less than 75 m/s.

14. (Currently Amended) An air induction system for inducing airflow into the intake of an internal combustion engine having a turbocharger, said system comprising:

a clean air ~~duct~~ channel directing airflow to ~~the~~ an inlet of said turbocharger;  
and

means for reducing the velocity of ~~the air flow~~ said airflow within said clean air ~~duct~~ channel in an area directly in front of ~~the~~ said inlet of said turbocharger.

15. (Currently Amended) The air induction system of claim 14, wherein said means for reducing the velocity of ~~the air flow~~ said airflow within said clean air ~~duct~~ channel in ~~an~~ said area directly in front of ~~the~~ said inlet of said turbocharger comprises a plenum, said plenum having a cross-sectional area being greater than a cross-sectional area of a portion of said clean air ~~duct~~ channel immediately upstream of said plenum.

16. (Currently Amended) The air induction system of claim 14, wherein said clean air ~~duct~~ channel further comprises a bell-mouth transition positioned between an outlet of said means for reducing the velocity of ~~the air flow~~ said airflow within said clean air ~~duct~~ channel and ~~the~~ said inlet of said turbocharger.

17. (Currently Amended) The air induction system of claim 16, wherein said bell-mouth transition has a radius ranging from approximately 3 to approximately 30% of ~~the~~ an effective diameter of ~~the~~ said inlet of said turbocharger.

18. (Currently Amended) The air induction system of claim 16, wherein said bell-mouth transition has a radius of approximately 20% of ~~the~~ an effective diameter of ~~the~~ said inlet of said turbocharger.

19. (Currently Amended) The air induction system of claim 14, wherein said clean air ~~duct~~ channel further comprises a diffuser located immediately upstream of and in communication with said means for reducing the velocity of ~~the air flow~~ said airflow within said clean air ~~duct~~ channel in ~~an~~ said area directly in front of ~~the~~ said inlet of said turbocharger, said diffuser being a conical diffuser comprising a cone angle that establishes ~~the~~ an expansion rate of ~~the~~ a cross-sectional area encompassed within said diffuser.

20. (Currently Amended) The air induction system of claim 19, wherein said cone angle is is in the range of approximately 4 to approximately 16 degrees.

21. (Original) The air induction system of claim 19, wherein said cone angle is approximately 12 degrees.

22. (Currently Amended) The air induction system of claim 19, wherein said clean air ~~duct~~ channel further comprises a bell-mouth transition positioned between ~~the~~ an outlet of said means for reducing the velocity of ~~the air flow~~ said airflow within said clean air ~~duct~~ channel and ~~the~~ said inlet of said turbocharger.

23. (Currently Amended) The air induction system of claim 22, wherein said bell-mouth transition has a radius ranging from approximately 3 to approximately 30% of ~~the~~ an effective diameter of ~~the~~ said inlet of said turbocharger.

24. (Currently Amended) The air induction system of claim 22, wherein said bell-mouth transition has a radius of approximately 20% of ~~the~~ an effective diameter of ~~the~~ said inlet of said turbocharger.

25. (New) The air induction system of claim 1, further comprising an air filter in fluid communication with an inlet of said clean air channel and located upstream of said plenum.

26. (New) The air induction system of claim 25, wherein said clean air channel redirects said airflow at least approximately 180 degrees from an outlet of said air filter to said inlet of said turbocharger.

27. (New) The air induction system of claim 5, wherein said diffuser is an angular diffuser.
28. (New) The air induction system of claim 5, wherein said diffuser and said plenum each redirect the direction of said airflow within said clean air channel.
29. (New) The air induction system of claim 15, further comprising an air filter in communication with an inlet of said clean air channel and located upstream of said means for reducing the velocity of said airflow within said clean air channel in an area directly in front of said inlet of said turbocharger.
30. (New) The air induction system of claim 29, wherein said clean air channel redirects said airflow at least approximately 180 degrees from an outlet of said air filter to said inlet of said turbocharger.
31. (New) The air induction system of claim 30, wherein said clean air channel further comprises an angular diffuser in fluid communication with said plenum at approximately a 90 degree angle.

32. (New) An air induction system for inducing airflow into the intake of an internal combustion engine having a turbocharger, said system comprising:

an air filter;

a clean air channel in fluid communication with an outlet of said air filter so that an airflow is formed therein;

a diffuser in fluid communication with and located downstream of said clean air channel; and

a plenum in fluid communication with and located downstream of said diffuser, wherein said airflow is directed to an inlet of said turbocharger.

33. (New) The air induction system of claim 32, further comprising a bell-mouth transition located at an outlet of said plenum.

34. (New) An air induction system for inducing airflow into the intake of an internal combustion engine having a turbocharger, said system comprising:

an air filter;

a clean air channel in fluid communication with an outlet of said air filter so that an airflow is formed therein; and

means for both restoring pressure head and redirecting said airflow at least approximately 90 degrees that is in fluid communication with an outlet of said clean air channel and directs said airflow to an inlet of said turbocharger.



35. (New) The air induction system of claim 34, wherein said means for restoring pressure head and redirecting said airflow at least approximately 90 degrees comprises a diffuser in fluid communication with a plenum.

36. (New) The air induction system of claim 35, wherein said system redirects said airflow at least approximately 180 degrees from an outlet of said air filter to said inlet of said turbocharger.